

OSTP Nov. 3, 2011 RFI on Public Access  
Response from the  
Association of Public and Land-grant Universities, APLU  
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On behalf of the Association of Public and Land-grant Universities (APLU), I write to reaffirm our support of providing public access to the results of research funded by the federal government and published in scholarly journals. This statement echoes many points the APLU sent in response to the OSTP's 2010 RFI on public access. APLU's endorsement of public access at that time was based on our polling of the Association's Board and of all the Provosts and Research Officers at our member universities. The role of our member universities in both the generation and the dissemination of new knowledge gives us a balanced perspective on the importance of publication and the desirability of ready public access to new research results. As we stated last year, timely and convenient public access to the fruits of federally-funded research benefits scholars and researchers, businesses, and our present and future students, and it enhances the vitality of intellectual inquiry generally. The intent of Article I, Section 8, of the U.S. Constitution was to "promote the Progress of Science and useful Arts," and how federal policy can best do that within the context of the Internet and search engines of today requires careful examination and weighing of the impacts of public access policies and the attributes of various models for dissemination, access, and preservation of the scholarly record.

*Background of the Association-*

The Association of Public and Land-grant Universities is a research and advocacy organization of public research universities, land-grant institutions, and state university systems. Our 217 members enroll more than 4.7 million students, award 60 percent of U.S. doctoral degrees and conduct nearly two-thirds of all federally-funded academic research, totaling more than \$34 billion annually.

We turn now to the specific questions of the RFI:

(1) Are there steps that agencies could take to grow existing and new markets related to the access and analysis of peer-reviewed publications that result from federally funded scientific research? How can policies for archiving publications and making them

publically accessible be used to grow the economy and improve the productivity of the scientific enterprise? What are the relative costs and benefits of such policies? What type of access to these publications is required to maximize U.S. economic growth and improve the productivity of the American scientific enterprise?

The APLU advocates broad and convenient public access at a reasonable cost, and at low or no cost as electronic media make that economically practicable. Paradoxically, the migration from print to electronic form has often reduced access. Electronic access to scholarly journals has been restricted largely to those who are members of the university community for which the electronic journals are licensed. Universities that once could lend copies of journals to the general public or permit them to have photocopies through inter-library loan, can no longer do so. Thus the continuing migration of the scholarly literature to electronic form reduces its lawful availability to the public. Small businesses and start-up companies need access to scholarly literature and the latest technological developments; for a budding enterprise, the cost and time required to negotiate licenses can be a big barrier to lawful access.

Frequently small business startups have as their principals or employees individuals with recent experience in university graduate programs and/or in research. Thus, they know the value that access scholarly record might hold for the success of their startups. Unfortunately, such businesses tend to be thinly capitalized and cannot afford expensive journal subscriptions. Great economic value can be created if a government-wide public access program that provides such access is put in place.

(2) What specific steps can be taken to protect the intellectual property interests of publishers, scientists, Federal agencies, and other stakeholders involved with the publication and dissemination of peer-reviewed scholarly publications resulting from federally funded scientific research? Conversely, are there policies that should not be adopted with respect to public access to peer-reviewed scholarly publications so as not to undermine any intellectual property rights of publishers, scientists, Federal agencies, and other stakeholders?

The patentable intellectual property resulting from federal research can be protected through provisions of U.S. patent law and international patent treaties. Nothing in the policies concerning peer-reviewed scholarly publications should conflict with that protection. Copyright protection on scholarly content has to be maintained for the purpose of assuring proper attribution and for capturing reasonable revenue flows to cover the costs of

publication production and distribution, recognizing that production and distribution have been greatly simplified by electronic tools and media. Publishers historically add to and enhance content through editorials, indexing, layout, copyediting, organization of material, etc., that must be respected and given due recognition. Historically a scholarly journal has bundled the scholarly content and the publisher's contributions, with copyright transferred by the author and held by the publisher, but achieving fairness to all contributing stakeholders calls for unbundling these elements conceptually.

(3) What are the pros and cons of centralized and decentralized approaches to managing public access to peer-reviewed scholarly publications that result from federally funded research in terms of interoperability, search, development of analytic tools, and other scientific and commercial opportunities? Are there reasons why a Federal agency (or agencies) should maintain custody of all published content, and are there ways that the government can ensure long-term stewardship if content is distributed across multiple private sources?

In brief, a centralized approach can have advantages in terms of consistency of policy and practice while being correspondingly prone to disadvantages like rigidity and stultifying bureaucracy. Centralized approaches in general are vulnerable to failures when the "center" represents a concentration that can be subject to accident or even maliciously attacked at one physical location (e.g., the 1814 burning of the Library of Congress by the British). Also, a centralized approach may have a pervasive weakness in its uniform methods. Decentralized approaches can have greater resiliency and robustness and exhibit the positive attributes of diversity. At the same time, that diversity may pose challenges for consistency and interoperability.

With careful systems design and thorough execution, either approach can be workable. Clearly, wherever and however the material is stored, it must reside in multiple repositories in diverse geographic locations and otherwise protected against loss of data. For scholarly publications, a federal agency may reasonably keep custody of all published content for the sake of assuring long-term stewardship and beneficial redundancy, even if primary high-volume access to published content takes place by other means. Assuming reliable Internet connectivity, both centralized and decentralized models can be implemented without the content-searcher readily perceiving a difference.

(4) Are there models or new ideas for public-private partnerships that take advantage of existing publisher archives and encourage innovation in accessibility and interoperability, while ensuring long-term stewardship of the results of federally funded research?

We do not know of such models but, if publisher archives become part of a public access system, those archives must be compelled to adhere to the standards that characterize the maintenance of university archives. Such standards include but are not limited to 1) guarantees that material placed in such archives generally will not be removed or modified, 2) that access will be made available to all on nondiscriminatory terms, 3) that such archives will be actively linked to other public access archives such that unitary searches can be done, i.e. so that the location of the material in a privately held archive is not material to the conduct of searches and 4) that a mechanism will be put in place to ensure that all the material in the archive will be conveyed to a trusted successor organization should the private organization be unable to or choose not to maintain the archive.

(5) What steps can be taken by Federal agencies, publishers, and/or scholarly and professional societies to encourage interoperable search, discovery, and analysis capacity across disciplines and archives? What are the minimum core metadata for scholarly publications that must be made available to the public to allow such capabilities? How should Federal agencies make certain that such minimum core metadata associated with peer-reviewed publications resulting from federally funded scientific research are publicly available to ensure that these publications can be easily found and linked to Federal science funding?

(6) How can Federal agencies that fund science maximize the benefit of public access policies to U.S. taxpayers, and their investment in the peer-reviewed literature, while minimizing burden and costs for stakeholders, including awardee institutions, scientists, publishers, Federal agencies, and libraries?

Ease of compliance is crucial to achieving public access policy compliance. Faculty member authors can be motivated to make good faith efforts to comply, but the rate of compliance will be lower if a busy faculty member is expected to master intricate requirements and different posting protocols to publish research sponsored by different federal agencies. For all members of the stakeholder community, there is a significant advantage to simplicity of concept and consistency of approach. We suggest that, to the extent practicable, uniform requirements and procedures regarding deposit of papers be established across all funding agencies covered with, for example, the length of embargo period as parameter that may vary from field to field.

Consistent deposit protocols will reduce cost and complexity while increasing the rate of compliance.

Ease of access is similarly crucial for the user community. As information technology tools have leaped forward, the ability of search engines such as Google Scholar to digest, catalogue, and cache content extracts essential for searching is very important. A central electronic access point, such as PubMed Central, can offer specialized search capabilities for those who know to use them. For the public at large, immediacy of access is dependent on access to the published material, in whatever repository, by web crawlers, combined with legibility of the material with standard Internet browsers. To facilitate accuracy in scholarly references, it is far preferable to have the searchable and accessible text be the final published document, not a pre-print or the submitted manuscript.

The NIH public access model represents a balance between competing interests: researchers want timely access, and publishers want sufficient control and revenues from access to support a high quality production and distribution process. The NIH model has balanced these well, and it has proven very popular with our member universities.

Some propose that adoption of the NIH model by other federal agencies should allow for an embargo period that varies according the field. This will be taken up further under our response to question (8). The principle of simplicity and ease of compliance suggests that the embargo periods might have at most several tiers, but not unlimited variability. The embargo period should be consistent across similar types of publications within a given field and across similar fields whenever possible.

(7) Besides scholarly journal articles, should other types of peer-reviewed publications resulting from federally funded research, such as book chapters and conference proceedings, be covered by these public access policies?

The principle that federally-funded research publications should be publicly accessible is independent of mode of publication, but pragmatically, there may be good reason to allow some differences in requirements. Books are generally considered a vehicle for publishing material that has a more lasting value and for which the publisher might anticipate sales to individuals over a number of years. The economics of the book market and the costs of production may be a rationale for a longer period of embargo, for example.

Even peer-refereed conference proceedings can vary significantly in the standards expected for quality and novelty of accepted contributions. While proceedings from prestigious conferences may have a standing comparable to or exceeding that of journal publications, other conference proceedings are topical offerings with much lower likelihood of future citations.

In the electronic era, the lines of demarcation between books, journals, and conference proceedings are blurring. A series of eBooks in a field could be very similar to a journal in impact. Conference proceedings may be published on the Web and have as large a readership as a journal. When there is little distinction among modes, the argument for a consistent public access policy is strong.

(8) What is the appropriate embargo period after publication before the public is granted free access to the full content of peer-reviewed scholarly publications resulting from federally funded research? Please describe the empirical basis for the recommended embargo period. Analyses that weigh public and private benefits and account for external market factors, such as competition, price changes, library budgets, and other factors, will be particularly useful. Are there evidence-based arguments that can be made that the delay period should be different for specific disciplines or types of publications?

We are unaware of any journals whose financial viability has been significantly damaged by the NIH Public Access requirement and its 12-month embargo. The experience of the libraries of APLU members over the last two decades has been that of journal prices rising at well above the inflation rate, particularly in the sciences and engineering fields, a proliferation of journals, and publisher pricing to libraries for electronic access that involve bundling of groups of journals. Without doubt, some scholarly societies have relied on positive net revenues from journals to provide subsidies to other activities that have benefits for their membership. To the extent a short embargo demonstrably leads to the loss of subscriptions and associated revenue, those affected will argue that a longer embargo is necessary for the viability of their enterprise. To this point we have not been alerted to the extreme distress or disappearance of a journal critical to a field due to the current NIH policy.

It is important to recognize that information technology, and its ability to propagate information at close to zero incremental cost, is a disruptive technology in many “publication” businesses, and scholarly communication is not immune. The conventional distribution network of “printed” material is losing or lost ground rapidly to new Internet models in, for example, the

recorded music industry and the newspaper industry. Those industries have been forced to experiment with new business models. Losing consumers and subscribers, they have had to test new distribution ideas and seek new revenue sources. In the case of newspapers, they have looked to better targeted advertising and broader subscriber bases at lower costs to replace lost print advertising revenues. For those industries the trend has been painful, visibly damaging, but obviously unstoppable.

Included in the business analysis of the new order has to be the effectiveness and cost of enforcing copyright protection. There is no good rationale for a publishing framework that simply forces institutions that respect the law to carry the full economic burden of sustaining an outmoded business model. For scholarly communication, universities and university libraries have been painted into that corner. Increasingly scholars in various areas have embraced an “open access” model as a way to capitalize on information technology to improve the availability of their own work and make it more easily found by interested parties.

High-quality scholarly publication must continue to thrive. Whether through author fees for publication or subscriber fees for access, revenue is needed to sustain peer-review and triage, careful composition, editorial oversight, reliable distribution and access, and long-term preservation. The embargo period of the NIH policy allows the value of copyright to act during the initial period post-publication, when the demand for access is highest in science and engineering fields, to sustain the subscriber model.

The APLU has not done nor gathered results of studies that would provide empirical evidence for the appropriate length of the embargo period in different fields. We do believe that informative studies could be done and may already have been done in some fields. Publishers and libraries that have been providing primarily electronic access to journals probably have data or could collect data on the rate of access to articles, from the time they first become available and over a period of many months or years thereafter. Access activity that is strongly loaded into the first several months and drops off markedly thereafter is strong evidence that an embargo that extends, say, six months after the drop off should suffice. The immediacy of interest in the first months, during the embargo, will sustain subscriptions. If there is little drop off in access in a field, that would suggest that a longer period of embargo may be justified. Such studies would be valuable in establishing

suitable embargo tiers, as suggested above, for disciplinary fields that would be affected by an expanding public access policy.

Thank you for this opportunity to address your questions.